

**CATALYST OF OLEFIN LOW POLYMERIZATION REACTION AND LOW POLYMERIZATION OF OLEFIN USING THE SAME**

**Patent number:** JP8325318  
**Publication date:** 1996-12-10  
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**Classification:**  
- **international:** C08F4/69; C08F10/00  
- **european:**  
**Application number:** JP19950135137 19950601  
**Priority number(s):**

**Abstract of JP8325318**

**PURPOSE:** To obtain the subject catalyst comprising a chromium compound, a pyrrole-containing compound, an alkyl metal compound and a specific Lewis acid, capable of carrying out low polymerization reaction in extremely high activity.

**CONSTITUTION:** This catalyst for low polymerization for an olefin comprises (A) a chromium compound, (B) a pyrrole-containing compound, (C) an alkyl metal compound and (D) a Lewis acid of the formula  $M(Ar)_1$  ((I) is 2-4; M is an element of the group IIB, IIIB or IV B of the periodic table; Ar is an aryl) such as tris(pentafluorophenyl)boron. Preferably the component A is a compound of the formula  $CrAmBn$  (m is 1-6; n is 0-4; A is a 1-20C alkyl, alkoxy, carboxyl, & beta -diketonate, etc.; B is a nitrogen-containing compound, a phosphorus-containing compound, an arsine-containing compound, etc.), the component C is a compound of the formula  $M'R_pX_q$  (p is  $0 < p \leq 3$ ; q is  $0 \leq q < 3$  and  $p+q$  is 1-3; M' is lithium, magnesium, zinc, etc.; R is a 1-10C alkyl; X is H, an alkoxy, aryl, etc.). The catalyst contains preferably (E) a halide.

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